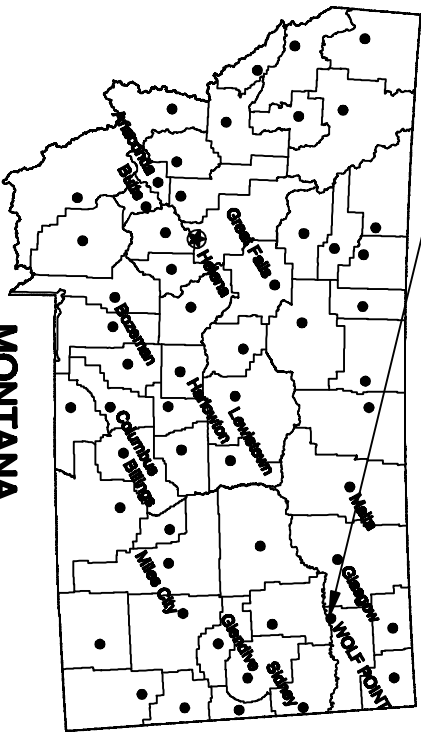
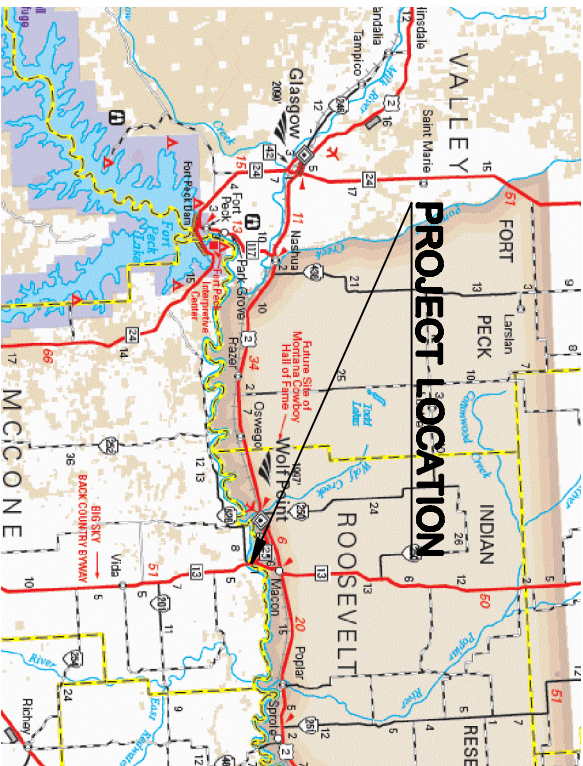


PROJECT LOCATION

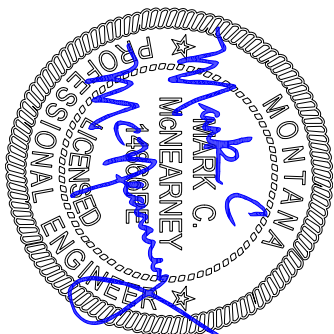
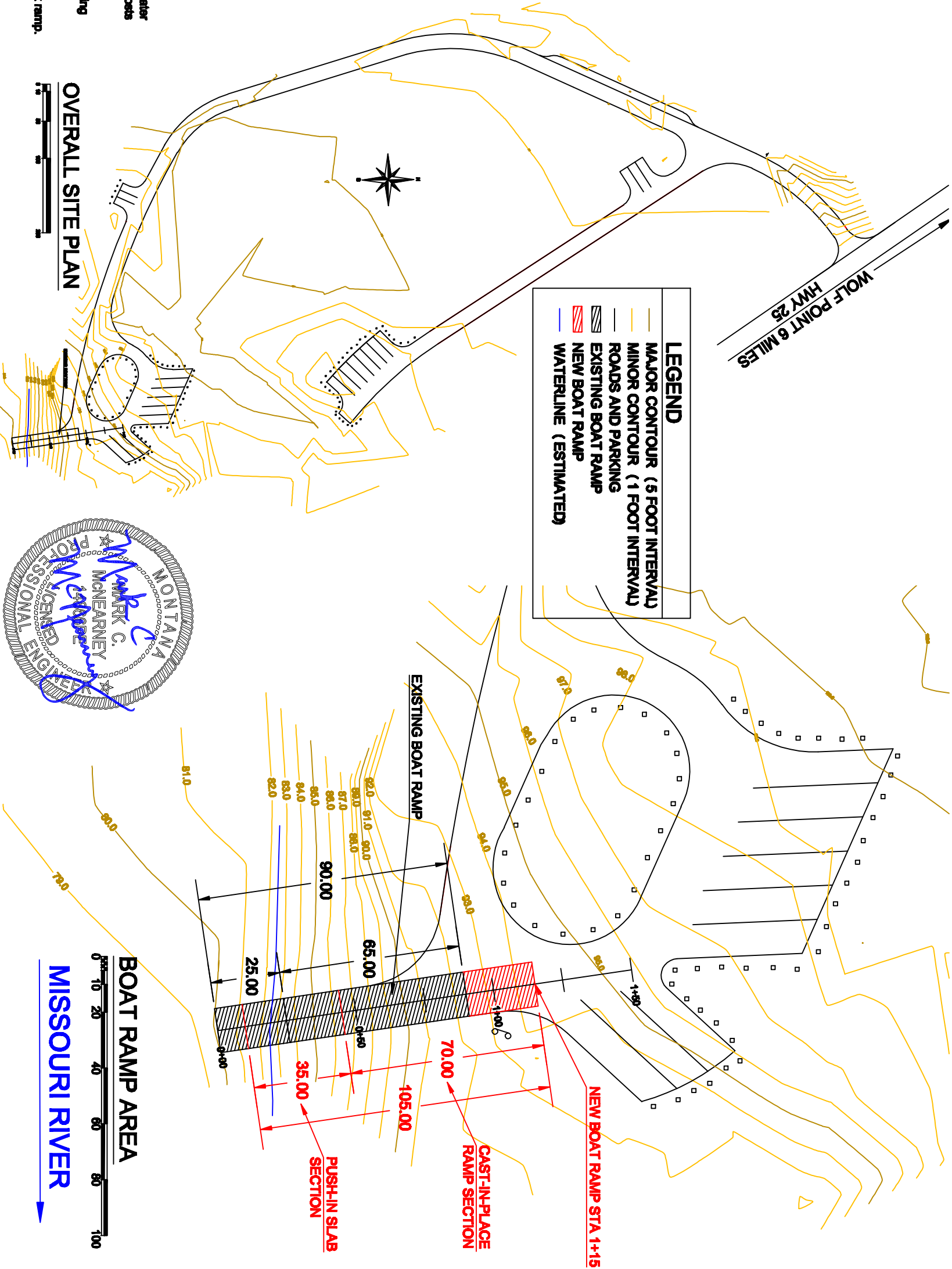


MONTANA

No Scale



- Notes:**
- 1) Remove existing boat ramp and dispose of in a safe and legal manner.
  - 2) FWP Engineer will stake grade and location of new boat ramp.
  - 3) Excavate ramp, place gravel to grade. Grade of ramp will be 14% - 16%.
  - 4) The lengths of the cast-in-place and push-in ramp sections may vary due to water levels. Total quantities are estimates, and compensation will be made using unit costs from the bid form.
  - 5) Cast - in - place ramp grade includes a vertical curve from ramp grade to parking area grade.
  - 6) Remove all construction debris from site, and blend parking grades to new boat ramp.
  - 7) Observe best management practices.



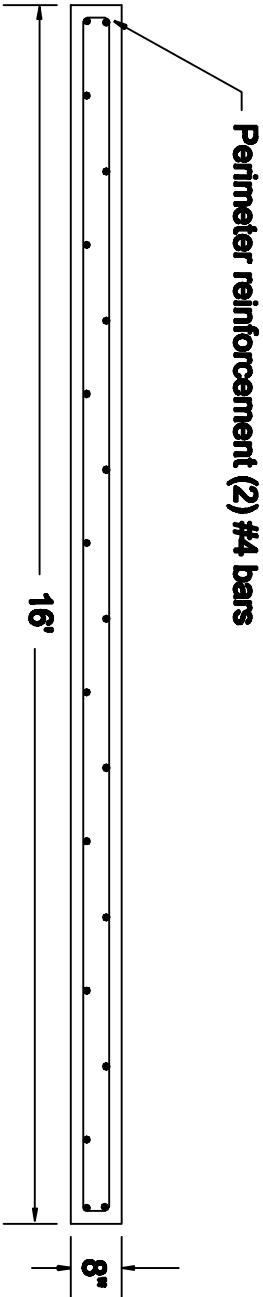
Montana Fish,  
Wildlife & Parks

Lewis and Clark FAS  
near Wolf Point, MT



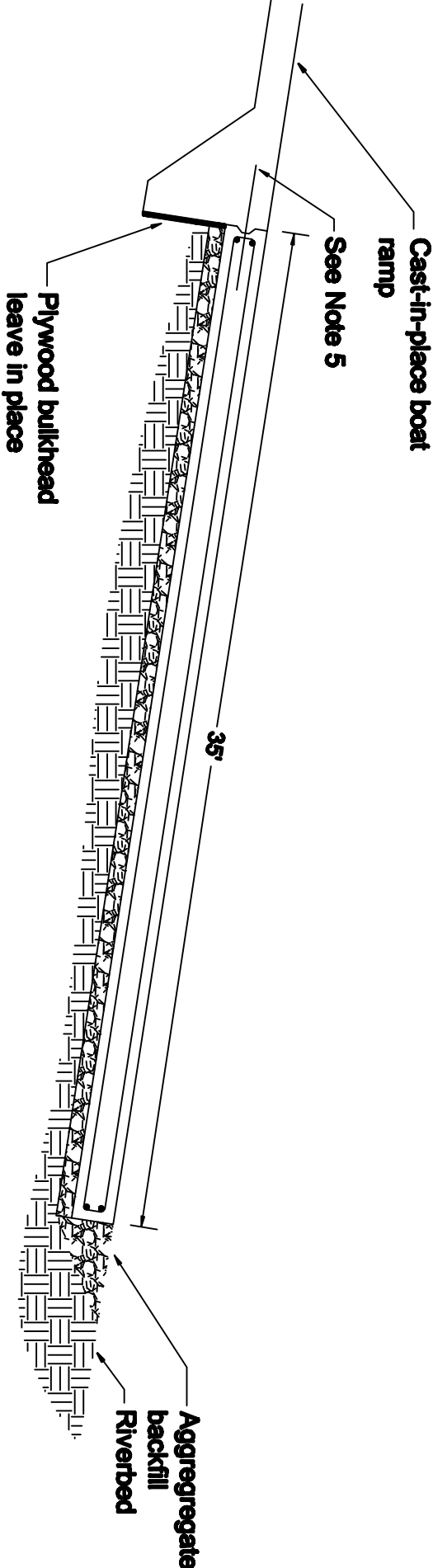
SHEET: 1 of 3



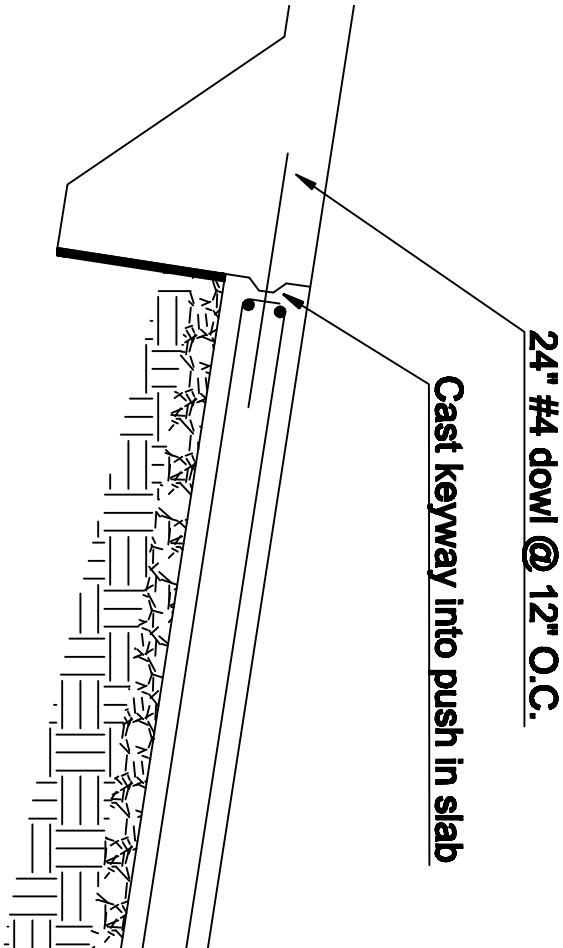


## PUSH IN SLAB CROSS SECTION

NOT TO SCALE



- Notes:
- 1) Form push-in slab on boat ramp grade.
  - 2) Install push-in slab to match as evenly as possible to river bank elevations.
  - 3) Place sub grade material into the water so the push in slab is fully supported by the sub grade when it is installed.
  - 4) Reinforcement: 2 mats consisting of #4 Grade 40 rebar 2' o.c. each way, offset mats 1' , allow 2" of concrete cover, each bar shall have a 4" hook at the perimeter and be tied to the perimeter bars.
  - 5) Place 24" #4 rebar dowels at 12" o.c. through keyway cast in push in slab.
  - 6) A plastic barrier is used as a separation between the sub grade and concrete when it is poured.
  - 7) 3" Sched 80 steel pipes or other approved sections, shall be placed at the bottom of the slab elevation,extending past the proposed end of the slab, and used to guide the slab into the water. Steel guides may be removed after slab installation.
  - 8) The push in slab finish shall have the same finish as the boat ramp.FWP will provide grooving tool.
  - 9) Allow seven (7) days of curing time before the push in slab is installed.
  - 10) Backfill the slab with clean aggregate.
  11. Above water cast-in-place ramp is installed after below water push-in section.



## PUSH IN SLAB PROFILE SECTION

NOT TO SCALE

## CONNECTION DETAIL

NOT TO SCALE



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SHEET: 3 of 3